

RRD23LR007 / FE-2023-04 Fatality Investigation

Analysis-Track: FRA Track Safety Inspector conducted a walking inspection of the Norfolk Southern (NS), Keystone Division, Cleveland Belt Subdivision between MP CB 1.6 to CB 1.7. Geometry measurements for track notes were taken at 15' 6" increments for 12 stations leading up to the point of impact, which was within a highway-rail grade crossing, and 3 stations past the point of impact in a westward timetable direction for train travel. This segment of track is designated FRA Class 1 with a maximum operating speed of 10 mph. The measurements taken meet the requirements for its intended class, in accordance with 49 CFR Part 213 Track Safety Standards.

The segment of track between MP CB 1.6 and MP CB 1.7 is tangent with level grade. It consists of 112RE, 115RE, and 136RE continuous welded rail (CWR) and every crosstie is box anchored, except the ties for the railroad crossing at-grade (diamond). The crosstie plates are 13" double-shoulder plates with conventional 6" cut spikes, one rail-holding spike on the field side and one rail-holding spike on the gage side, to secure track gage. The crossties are in good shape, with nominal evidence of loose spikes, lateral plate movement, or plate cutting. The diamond is within 35' of the highway-rail crossing on the east approach. The diamond components are 115RE, and the ties under the diamond are in good shape with various lengths to support the diamond legs and corners. The ballast is fouled extending from the highway-rail crossing to the diamond.

Conclusion: FRA determined the track did not contribute to the cause or severity of the accident.

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Track Notes

Division: Keystone Subdivision: Cleveland Belt Milepost: CB1.6 - CB1.7

Direction: Timetable West Taken Under Load: Yes / (No)

Station	Points Between Station			Description	Gage	Elevation	Line	Remarks
	Ft.	In.	Rail					
3					56 1/8"	- 7/8"		road crossing
2					56 1/2"	- 1 3/8"		" "
1					57"	- 1 1/4"		" "
POD				joint north	56 1/2"	- 1 1/8"		road crossing covered in dirt
1					56 3/8"	+ 1/8"		" "
2	3	3		joins north and south	56 3/4"	+ 1/4"		joins directly across from each other
	5	11 1/2		joint north	56 7/8"	- 1/2"		
	8	0		joint south	56 5/8"	- 1/8"		
3	13	1/2		leg rail joint	56 1/2"	- 1 1/4"		diamond northwest corner
				diamond corner	56 3/8"	- 7/8"		" " "
	4	5		leg rail joint	56 1/8"	0"		diamond southwest corner
	7	0		diamond corner	56 3/8"	0"		" " "
	9	5		diamond corner	56 1/4"	+ 1/4"		diamond northeast corner
4	11	11		leg rail joint	56 1/2"	+ 1/8"		" " "
				diamond corner	56 3/8"	+ 3/8"		diamond southeast corner
	4	0		leg rail joint	56 3/8"	+ 1/2"		" " "
	8	2		joint south	56 3/8"	+ 3/4"		
	13	0		joint north	56 5/8"	- 1/2"		
5					56 7/8"	- 3/8"		
6					56 1/2"	- 1/4"		
7					56 7/8"	0"		
8					56 3/4"	- 1/4"		
9					56 7/8"	- 1/8"		
10					56 1/2"	+ 1/8"		
11					56 1/2"	0"		
	12	8		point of switch	56 5/8"	+ 1/4"		trailing point switch
12					56 3/8"	+ 3/8"		